Claims

[1] A plasma discharger in which a pulse voltage is applied to a pair of rod-like discharge electrodes (6) (7) to produce a corona discharge between said discharge electrodes (6) (7), and a surface of a workpiece (W) is irradiated with excited species including plasma produced by the corona discharge, wherein

said pair of rod-like discharge electrodes (6) (7) are formed into an asymmetrical shape, and a pointed end (6a) of one discharge electrode (6), and a pointed end (7a) of another discharge electrode (7) are located at different phase heights on an axis along a plasma ejecting direction.

[2] A plasma discharger according to claim 1, wherein said one discharge electrode (6) is formed into a substantially L-like shape, said other discharge electrode (7) is formed into a substantially V-like shape, and said pointed end (6a) of the discharge electrode (6) which is formed into a substantially L-like shape is forwardly located in the plasma ejecting direction.

[3] A plasma discharger according to claim 2, wherein said pointed end (6a) of said discharge electrode (6) which is formed into a substantially L-like shape is located in an outer peripheral portion of said disk-like workpiece (W) which is treated while involving rotation, and a bend-

continuous basal end portion of the other discharge electrode (7) which is formed into a substantially V-like shape is located in a rotation center portion of said disk-like workpiece (W) which is treated while involving rotation.